

AMENDMENTSClaim amendments:

1. (Currently Amended) A method in a programmable device for generating metadata for television program receiver~~transmission to a programming event receiver~~, the metadata describing a television program~~programming event~~, the method comprising:

obtaining production data corresponding to the television program~~programming event~~ from a production system used in the production of the television program~~programming event~~ prior to broadcast of the television program; ~~the production data including descriptive information and timing information for the programming event;~~

assigning respective numerical goodness of fit scores to respective predefined categories based on analysis of the production data to describe the subject matter of the television program~~programming event~~, wherein the numerical goodness of fit score assigned to a category represents a degree to which the category is descriptive of the subject matter of the television program~~programming event~~;

assigning keywords to the television program~~programming event~~ based on analysis of the production data; and

storing numerical goodness of fit scores and keywords for the television program~~programming event~~ in a computer readable medium in association with time data and descriptive data for the television program~~programming event~~ as the metadata for ~~transmission to a programming event receiver~~ as metadata describing the television program~~programming event~~; and

transmitting the metadata for the television program to television program receivers before broadcast of the television program to the television program receivers.

2. (Previously Presented) The method claimed in claim 1, wherein assigning keywords comprises:

determining respective numerical goodness of fit scores corresponding to said categories for each of candidate keywords; and

determining a representative subset of said candidate keywords by a thresholding procedure using said numerical goodness of fit scores for said candidate keywords.

3. (Previously Presented) The method claimed in claim 1, wherein said predefined categories are subject matter categories arranged in a hierarchy comprising at least a set of top-level categories, respective sets of first level sub-categories each corresponding to and encompassed by a top level category, and respective sets of second level sub-categories each corresponding to and encompassed by a first level sub-category.

4. (Previously Presented) The method claimed in claim 1, further comprising determining a representative subset of said numerical goodness of fit scores, and wherein storing numerical goodness of fit scores comprises storing said representative subset of said numerical goodness of fit scores.

5. (Previously Presented) The method claimed in claim 1, wherein the production data comprises rundown data produced by the production system.

6. (Previously Presented) The method claimed in claim 1, wherein the production data comprises script data produced by the production system.

Claims 7-9 (Canceled)

10. (Previously Presented) The method claimed in claim 1, wherein storing keywords comprises selecting a predetermined number of said assigned keywords for storage.

11. (Currently Amended) A programmable device for generating metadata for television program receivers ~~transmission to a programming event receiver~~, the metadata describing a television program~~programming event~~, the device comprising a computer readable medium storing programming code to control the device to perform processing comprising:

obtaining production data corresponding to the television program~~programming event~~ from a production system used in the production of the television program~~programming event~~ prior to broadcast of the television program, ~~the production data including descriptive information and timing information for the programming event;~~

assigning respective numerical goodness of fit scores to respective predefined categories based on analysis of the production data to describe the subject matter of the television program~~programming event~~, wherein the numerical goodness of fit score assigned to a category represents a degree to which the category is descriptive of the subject matter of the television program~~programming event~~;

assigning keywords to the television program~~programming event~~ based on analysis of the production data; and

storing numerical goodness of fit scores and keywords for the television program~~programming event~~ in a computer readable medium in association with time data and descriptive data for the television program~~programming event~~ as the ~~metadata for transmission to a programming event receiver~~ as metadata describing the television program~~programming event~~; and

transmitting the metadata for the television program to television program receivers before broadcast of the television program to the television program receivers.

12. (Previously Presented) The device claimed in claim 11, wherein assigning keywords comprises:

determining respective numerical goodness of fit scores corresponding to said categories for each of candidate keywords; and

determining a representative subset of said candidate keywords by a thresholding procedure using said numerical goodness of fit scores for said candidate keywords.

13. (Previously Presented) The device claimed in claim 12, wherein said predefined categories are subject matter categories arranged in a hierarchy comprising at least a set of top-level categories, respective sets of first level sub-categories each corresponding to and encompassed by a top level category, and respective sets of second level sub-categories each corresponding to and encompassed by a first level sub-category.

14. (Previously Presented) The device claimed in claim 11, said processing further comprising determining a representative subset of said numerical goodness of fit scores, and

wherein storing numerical goodness of fit scores comprises storing said representative subset of said numerical goodness of fit scores.

15. (Previously Presented) The device claimed in claim 11, wherein the production data comprises rundown data produced by the production system.

16. (Previously Presented) The device claimed in claim 11, wherein the production data comprises script data produced by the production system.

Claims 17-19 (Canceled)

20. (Previously Presented) The device claimed in claim 11, wherein storing keywords comprises selecting a predetermined number of said assigned keywords for storage.

21. (Currently Amended) A method in a programmable device for generating metadata for transmission to a programming event receiver, the metadata describing a programming event, the method comprising:

obtaining production data corresponding to the programming event from a production system used in the production of the programming event, the production data including descriptive information for the programming event;

determining candidate keywords from the production data;

providing the candidate keywords as respective inputs to a classification tool and generating for each of said candidate keywords a set of numerical goodness of fit scores each corresponding to a predefined subject matter category, wherein the numerical goodness of fit score corresponding to a category represents a degree to which the category is descriptive of the candidate keyword;

selecting keywords to represent the programming event from among said candidate keywords based on the set of numerical goodness of fit scores ~~corresponding to the categories of the classification hierarchy~~ for each of said candidate keywords; and

storing said selected keywords in a computer readable medium as a component of said metadata describing the programming event.

22. (Original) The method claimed in claim 21, wherein determining candidate keywords comprise identifying verbs and nouns in said production data and using said verbs and nouns as candidate key words.

23. (Previously Amended) The method claimed in claim 21, wherein selecting keywords is preceded by:

determining correlations between sets of numerical goodness of fit scores generated from said candidate keywords and a set of numerical goodness of fit scores generated by providing said descriptive information for the programming event as input to said classification tool; and

discarding candidate keywords having low correlation.

24. (Previously Amended) The method claimed in claim 21, wherein selecting keywords comprises eliminating candidate keywords by a thresholding process using a highest numerical goodness of fit score associated with each candidate keyword.

25. (Previously Amended) The method claimed in claim 21, wherein said production data comprises at least one of rundown data and script data for the programming event.

26. (Previously Amended) The method claimed in claim 21, wherein said production data further comprises timing data,

wherein determining candidate keywords is preceded by determining a time and a duration of individual segments of a program described by the production data, and

wherein said candidate keywords are generated using production data that is specific to an individual segment of said program such that the candidate keywords are descriptive of that individual segment.

27. (Currently Amended) A programmable device for generating metadata for transmission to a programming event receiver, the metadata describing a programming event, the device comprising a computer readable medium storing programming code for controlling the device to perform processing comprising:

obtaining production data corresponding to the programming event from a production system used in the production of the programming event, the production data including descriptive information for the programming event;

determining candidate keywords from the production data;

providing the candidate keywords as respective inputs to a classification tool and generating for each of said candidate keywords a set of numerical goodness of fit scores each corresponding to a predefined subject matter category, wherein the numerical goodness of fit score corresponding to a category represents a degree to which the category is descriptive of the candidate keyword;

selecting keywords to represent the programming event from among said candidate keywords based on the set of numerical goodness of fit scores ~~corresponding to the categories of the classification hierarchy~~ for each of said candidate keywords; and

storing said selected keywords in a computer readable medium as a component of said metadata describing the programming event.

28. (Previously Amended) The device claimed in claim 27, wherein determining candidate keywords comprise identifying verbs and nouns in said production data and using said verbs and nouns as candidate key words.

29. (Previously Amended) The device claimed in claim 27, wherein selecting keywords is preceded by:

determining correlations between sets of numerical goodness of fit scores generated from said candidate keywords and a set of numerical goodness of fit

scores generated by providing said descriptive information for the programming event as input to said classification tool; and

discarding candidate keywords having low correlation.

30. (Previously Amended) The device in claim 27, wherein selecting keywords comprises eliminating candidate keywords by a thresholding process using a highest numerical goodness of fit score associated with each candidate keyword.

31. (Previously Amended) The device claimed in claim 27, wherein said production data comprises at least one of rundown data and script data for the programming event.

32. (Previously Amended) The device claimed in claim 27, wherein said production data further comprises timing data,

wherein determining candidate keywords is preceded by determining a time and a duration of individual segments of a program described by the production data, and

wherein said candidate keywords are generated using production data that is specific to an individual segment of said program such that the candidate keywords are descriptive of that individual segment.

33. (Previously Presented) The method claimed in claim 21, wherein said predefined categories are subject matter categories arranged in a hierarchy comprising at least a set of top-level categories, respective sets of first level sub-categories each corresponding to and encompassed by a top level category, and respective sets of second level sub-categories each corresponding to and encompassed by a first level sub-category.

34. (Previously Presented) The device claimed in claim 27, wherein said predefined categories are subject matter categories arranged in a hierarchy comprising at least a set of top-level categories, respective sets of first level sub-categories each corresponding to and encompassed by a top level category, and respective sets of second level sub-categories each corresponding to and encompassed by a first level sub-category.

35. (New) A method in a programmable device for generating metadata for television program receivers, the metadata describing the subject matter of individual segments of a television program, the method comprising:

- obtaining production data corresponding to the television program from a production system used in the production of the television program prior to broadcast of the television program;

- processing the production data to determine individual segments of the television program prior to broadcast of the television program;

- for each segment of the television program:

- assigning respective numerical goodness of fit scores to respective predefined categories based on analysis of the production data to describe the subject matter of the segment of the television program, wherein the numerical goodness of fit score assigned to a category represents a degree to which the category is descriptive of the subject matter of the segment of the television program;

- assigning keywords to the segment of the television program based on analysis of the production data;

- storing numerical goodness of fit scores and keywords for the segment of the television program in a computer readable medium in association with time data and descriptive data for the segment of the television program as metadata describing the segment of the television program; and

transmitting the metadata for the segments of the television program to television program receivers before broadcast of the television program to the television program receivers.

36. (New) The method claimed in claim 35, wherein said predefined categories are subject matter categories arranged in a hierarchy comprising at least a set of top-level categories, respective sets of first level sub-categories each corresponding to and encompassed by a top level category, and respective sets of second level sub-categories each corresponding to and encompassed by a first level sub-category.

37. (New) The method claimed in claim 35, further comprising determining a representative subset of said numerical goodness of fit scores, and

wherein storing numerical goodness of fit scores comprises storing said representative subset of said numerical goodness of fit scores.

38. (New) The method claimed in claim 35, wherein the production data comprises rundown data produced by the production system.

39. (New) The method claimed in claim 35, wherein the production data comprises script data produced by the production system.

40. (New) A programmable device for generating metadata for television program receivers, the metadata describing the subject matter of individual segments of a television program, the device comprising a computer readable medium storing programming code to control the device to perform processing comprising:

obtaining production data corresponding to the television program from a production system used in the production of the television program prior to broadcast of the television program;

processing the production data to determine individual segments of the television program prior to broadcast of the television program;

for each segment of the television program:

assigning respective numerical goodness of fit scores to respective predefined categories based on analysis of the production data to describe the subject matter of the segment of the television program, wherein the numerical goodness of fit score assigned to a category represents a degree to which the category is descriptive of the subject matter of the segment of the television program;

assigning keywords to the segment of the television program based on analysis of the production data;

storing numerical goodness of fit scores and keywords for the segment of the television program in a computer readable medium in association with time data and descriptive data for the segment of the television program as metadata describing the segment of the television program; and

transmitting the metadata for the segments of the television program to television program receivers before broadcast of the television program to the television program receivers.

41. (New) The device claimed in claim 40, wherein said predefined categories are subject matter categories arranged in a hierarchy comprising at least a set of top-level categories, respective sets of first level sub-categories each corresponding to and encompassed by a top level category, and respective sets of second level sub-categories each corresponding to and encompassed by a first level sub-category.

42. (New) The device claimed in claim 40, said processing further comprising determining a representative subset of said numerical goodness of fit scores, and wherein storing numerical goodness of fit scores comprises storing said representative subset of said numerical goodness of fit scores.

43. (New) The device claimed in claim 40, wherein the production data comprises rundown data produced by the production system.

44. (New) The device claimed in claim 40, wherein the production data comprises script data produced by the production system.